

Claims

1. An artificial intervertebral disk (1, 8) that can be inserted between two adjacent vertebral bodies (11) of a patient, each artificial intervertebral disk (1, 8) having an element (4, 9) associated with the corresponding vertebral body (11), whereby the elements (4, 9) are joined to each other by means of an intermediate element (2) in such a restricted, articulated manner that torsional moments as well as shear forces can be transmitted, characterized in that the two elements (4, 9) have a contour (3) by means of which the elements (4, 9) are positively joined to the intermediate element (2).
2. The intervertebral disk (1, 8) according to claim 1, characterized in that the contour (3) is concave.
3. The intervertebral disk (1, 8) according to claim 1 or 2, characterized in that the contour (3) has a recess.
4. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the contour (3) has a friction-optimized surface texture.
5. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the contour (3) has a surface texture or roughness that increases the friction, at least in sections, in order to create a non-positive connection between the two elements (4, 9) and the intermediate element (2).
6. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the contour (3) is configured with such an oversize with respect to the intermediate element (2) that a compression of the intermediate element (2) stemming especially from movement by the patient allows a defined deformation.

7. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the intermediate element (2) has an annular closed shape.
8. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the intermediate element (2) is circular, oval or kidney-shaped.
9. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the annular intermediate element (2) has an ogival, oval or circular cross sectional surface crosswise to its annular central axis (7), at least in sections.
10. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the intermediate element (2) has a cross sectional surface (constriction 6) that differs in sections in the direction of its annular central axis (7) and that interacts with a correspondingly shaped contour (3).
11. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the cross sectional surface in the sagittal plane, in the frontal plane and/or in the transversal plane of the patient is widened in sections.
12. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the intermediate element (2) is made, at least in sections, of a polymer, especially polyethylene.
13. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the elements (4, 9) are provided with anchoring pins (5) or anchoring elements that serve for anchoring in the bone on the sides facing the vertebral bodies (11).
14. The intervertebral disk (1, 8) according to at least one of the preceding claims, characterized in that the elements (4, 9) with their anchoring pins (5) or anchoring

elements are coated with titanium or other biocompatible materials on their side facing the vertebral bodies (11).